

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT  
ASSISTANT SECRETARY FOR HOUSING-FEDERAL HOUSING COMMISSIONER

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MATERIALS RELEASE NO. 910c

DIRECTORS, HOUSING DIVISION  
DIRECTORS, MULTIFAMILY DIVISION  
DIRECTORS, SINGLE FAMILY DIVISION

ISSUE DATE: July 17, 1997

REVIEW DATE: July 17, 2000

SUBJECT: 1. Product Eldorado Man-Made Stone Veneer

2. Name and Address  
of Manufacturer

Eldorado Stone Corporation  
P.O. Box 489  
Carnation, WA 98014

Data on the nonstandard product, described herein have been reviewed by the Department of Housing and Urban Development and determination has been made that it is considered suitable from a technical standpoint for the use indicated herein. This Release does not purport to establish a comparative quality or value rating for this product as compared to standard products normally used in the same manner.

This Materials Release cannot be used as an indication of endorsement, or approval by HUD of the described product, and any statement or representation, presentation, however made, indicating such approval, endorsement or acceptance by HUD is unauthorized. See Code 18, U.S.C. 709.

Any reproduction of this Release must be in its entirety.

USE: Interior and Exterior Wall Veneer

DESCRIPTION:

Eldorado Stone veneers are decorative, nonstructural, precast units that are available in variety of sizes, shapes, textures and colors to produce the following seven basic patterns:

1. Monarch - a flat-faced stone, similar to many sand stones, and cast in natural shades.
2. Volcanic - a lava formed stone, cast in dark gray or black.
3. Basalt - resembles ledge stone, and cast in both rough and smooth textures in white, browns and grays.
4. Driftstone - a rough detail stone, cast in colors of natural driftstone.

5. Driftwood - cast to resemble real driftwood.
6. Brick - resembles used brick, and cast in various sizes, colors and textures.
7. Slate and Hearth Stone - cast to resemble real slate and hearth stone.

REQUIREMENTS:

1. The composition of Eldorado Stone shall be as follows:

Expanded Shale	57 percent
Portland Cement	34 percent
Perlite	9 percent
Air Entrainment	1 percent
Calcium Chloride	1 percent
Dyes	1 percent
2. The Eldorado Stone shall have a minimum compressive strength of 1000 psi when tested in accordance with ASTM C 513, and pass the freeze-thaw test described in ASTM C 666.
3. The mortar mixture for installing the stone is:  
  
2 parts Portland cement (conforming to ASTM C 150).  
  
4 parts sand (white limestone or white silica sand graded in accordance with ASTM C 144).  
  
1 part masonry cement (conforming to ASTM C 91).

INSTALLATION:

Installation of Eldorado Stone shall be in strict accordance with the manufacturer's instructions and specifications shown in the manufacturer's bulletin ES-7251.

1. Application to Existing Wood Frame Construction:

Units may be applied only over those existing wall surfaces of plaster, painted exterior stucco or wood siding which provide a firm base for the veneer. Exterior wall surfaces shall be covered with a building paper of a minimum of 15 lbs. per 100 sq. ft., composed of asphalt treated felt that is free from holes and breaks, or other waterproof paper. Such felt or paper shall be applied "weather-board-fashion", and lapped not less than 2" at horizontal joints, and not less than 6" at all vertical joints.

The building paper may be omitted on existing wall surfaces of exterior plaster or stucco. Corrosion-resistive 3.4 lb. metal lath, or No. 18 gauge 1" woven wire stucco mesh shall be secured with furring nails to the supporting wall studs. Nails shall be placed 6" on center, and shall be of sufficient length to penetrate the studs a minimum of 1". A setting bed composed of two parts sand and 1 part mortar cement shall be applied to the walls in areas not exceeding 10 sq. ft. at a time, and shall be a minimum of 1/2" thick to secure bond. The backs of the units may be covered individually, in lieu of the aforementioned method.

2. Application to New Frame Construction:

The veneer may be applied to open wood studs spaced not more than 16" on center. Studs shall be covered with building paper a minimum of 15 lbs. per 100 sq. ft. and "string" wires. No. 18 gauge, 1" woven wire mesh shall be attached to the studs with galvanized furring nails spaced 6" on center. Nails shall be of sufficient length to penetrate into the supporting wood studs a minimum of 1". A 1/2" scratch coat of 2 parts sand, 1 part mortar cement shall be applied over the wire mesh to provide a rigid backing for the veneer. The scratch coat shall be allowed to cure for not less than 48 hours before the mortar setting bed (2 parts sand, 1 part mortar cement) is applied to the moistened scratch coat in an area not exceeding 10 sq. ft. at a time. The depth of the bed shall be from 1/2" to 3/4" in thickness. The veneer units shall be pressed firmly into the mortar setting bed to secure bond. Regular Portland cement, with the addition of 10 percent (by volume) of hydrated lime, may be used in lieu of mortar cement. In extremely hot weather, the back and edge panels of the units shall be buttered individually to prevent excessive drying of mortar.

2. Application to Masonry:

The veneer may be applied directly to masonry backing without mesh, provided the surface is clean. Painted masonry surfaces shall first be cleaned by sand-blasting. The mortar bed (2 parts sand, 1 part mortar cement) shall be as cited above.

After all stone work has been thoroughly painted, cleaned and allowed to dry for at least ten (10) days, apply a sprayed flood coat of transparent dampproofing, strictly in accordance with manufacturer's instructions.

MANUFACTURER'S WARRANTY:

Eldorado Stone Corporation guarantees the Eldorado Man-made Stone Veneer masonry units covered by this Materials Release (MR) against defects in materials and workmanship, under normal use, for 20 years.

Defects are defined as chipping, cracking, crazing, flaking, unsightly discoloration, water absorption, or any other serious deterioration in performance. Should any such defects occur, the manufacturer will make a pro rata allowance for replacement.

MANUFACTURER'S RESPONSIBILITIES:

Issuance of this MR commits the manufacturer to fulfill, as a minimum, the following:

1. Produce, label and certify the material, product or system in strict accordance with the terms of this MR.
2. Provide necessary corrective action in a timely manner for all cases of justified complaint, poor performance or failure reported by HUD.
3. When requested, provide the Office of Consumer and Regulatory Affairs, Manufactured Housing and Standards Division, HUD Headquarters, with a representative list of properties, in which the material, product or system has been used, including complete addresses or descriptions of locations and dates of installation.
4. Inform HUD in advance of changes in production facilities, methods, design of the product, company name, ownership or mailing address.

EVALUATION:

This MR shall be valid for a period of three years from the date of initial issuance or most recent renewal or revision, whichever is later. The holder of this MR shall apply for a renewal or revision 90 days prior to the Review Date printed on this MR. Submittals for renewal or revision shall be sent to HUD Headquarters. Appropriate User Fee shall be sent to:

U.S. Department of Housing and Urban Development  
Technical Suitability of Products Fees  
P.O. Box 954199  
St. Louis, MO 63195-4199

The holder of this MR may apply for revision at any time prior to the Review Date. Minor revisions may be in the form of a supplement to the MR.

If the Department determines that a proposed renewal or supplement constitutes a revision, the appropriate User Fee for a revision will need to be submitted in accordance with Code of Federal Regulations 24 CFR 200.934, "User Fee System for the Technical Suitability of Products Program," and current User Fee Schedule.

CANCELLATION:

Failure to apply for a renewal or revision shall constitute a basis for cancellation of this MR. HUD will notify the manufacturer that the MR may be canceled when:

1. conditions under which the document was issued have changed so as to affect production of, or to compromise the integrity of the accepted material, product or system,
2. the manufacturer has changed its organizational form without notifying HUD, or
3. the manufacturer has not complied with responsibilities it assumed as a condition of HUD's acceptance.

However, before cancellation, HUD will give the manufacturer a written notice of the specific reasons for cancellation, and the opportunity to present views on why the MR should not be canceled. No refund of fees will be made for a canceled document.

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This Materials Release is issued solely for the captioned firm, and is not transferable to any person or successor entity.  
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